

DOCUMENT RESUME

ED 072 055

TM 002 251

TITLE Occupational Therapist (medical ser.)
079.128--Technical Report on Development of USES
Aptitude Test Battery.

INSTITUTION Manpower Administration (DOL), Washington, D.C. U.S.
Training and Employment Service.

REPORT NO S-352R

PUB DATE Dec 67

NOTE 19p.

EDRS PRICE MF-\$0.65 HC-\$3.29

DESCRIPTORS *Aptitude Tests; *Cutting Scores; Evaluation
Criteria; Job Applicants; *Job Skills; *Medical
Services; Norms; Occupational Guidance; Occupational
Therapy; *Personnel Evaluation; Test Reliability;
Test Validity

IDENTIFIERS GATB; *General Aptitude Test Battery; Occupational
Therapist

ABSTRACT

The United States Training and Employment Service General Aptitude Test Battery (GATB), first published in 1947, has been included in a continuing program of research to validate the tests against success in many different occupations. The GATB consists of 12 tests which measure nine aptitudes: General Learning Ability; Verbal Aptitude; Numerical Aptitude; Spatial Aptitude; Form Perception; Clerical Perception; Motor Coordination; Finger Dexterity; and Manual Dexterity. The aptitude scores are standard scores with 100 as the average for the general working population, and a standard deviation of 20. Occupational norms are established in terms of minimum qualifying scores for each of the significant aptitude measures which, when combined, predict job performance. Cutting scores are set only for those aptitudes which aid in predicting the performance of the job duties of the experimental sample. The GATB norms described are appropriate only for jobs with content similar to that shown in the job description presented in this report. A description of the validation sample and a personnel evaluation form are also included. (AG)

December 1967 United States Employment Service Technical Report

S-352R

S-352R

ED 072055

**Development of USES Aptitude Test Battery
for
OCCUPATIONAL THERAPIST**

(medical ser.) 079.128

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**U.S. DEPARTMENT OF LABOR
MANPOWER ADMINISTRATION**

ED 072055

Technical Report on Development of USES Aptitude Test Battery

For

Occupational Therapist (medical ser.) 079.128

S-352R

(Developed in Cooperation with the
California State Employment Service)

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December 1967

FOREWORD

The United States Employment Service General Aptitude Test Battery (GATB) was first published in 1947. Since that time the GATB has been included in a continuing program of research to validate the tests against success in many different occupations. Because of its extensive research base the GATB has come to be recognized as the best validated multiple aptitude test battery in existence for use in vocational guidance.

The GATB consists of 12 tests which measure 9 aptitudes: General Learning Ability, Verbal Aptitude, Numerical Aptitude, Spatial Aptitude, Form Perception, Clerical Perception, Motor Coordination, Finger Dexterity, and Manual Dexterity. The aptitude scores are standard scores with 100 as the average for the general working population, with a standard deviation of 20.

Occupational norms are established in terms of minimum qualifying scores for each of the significant aptitude measures which, in combination, predict job performance. For any given occupation, cutting scores are set only for those aptitudes which contribute to the prediction of performance of the job duties of the experimental sample. It is important to recognize that another job might have the same job title but the job content might not be similar. The GATB norms described in this report are appropriate for use only for jobs with content similar to that shown in the job description included in this report.

Charles E. Odell, Director
U.S. Employment Service

GATB #2683 + :568

DEVELOPMENT OF USES APTITUDE TEST BATTERY

For
Occupational Therapist (medical ser.) 079.128-018

S-352R

This report describes research undertaken for the purpose of developing General Aptitude Test Battery (GATB) norms for the occupation of Occupational Therapist (medical ser.) 079.128-018. The following norms were established:

GATB Aptitudes	Minimum Acceptable GATB Scores
V-Verbal Aptitude	110
F-Finger Dexterity	95
M-Manual Dexterity	95

RESEARCH SUMMARY

Sample:

83 (4 male, 79 female) Occupational Therapy students from three California Universities. All students served nine months of internship in either three or four Occupational Therapy Departments of various hospitals and clinics located throughout the United States.

Criterion:

A multiple hurdle consisting of both final grade point averages for Occupational Therapy course of study and supervisory ratings of job performance during internship was used as the final criterion for this study.

Design:

Longitudinal (sample was tested during beginning of junior and senior years of college; scholastic criterion data were collected upon completion of senior year and performance criterion data were collected during the post-graduation internship period.)

Minimum aptitude requirements were determined on the basis of a course and job analysis and statistical analyses of aptitude mean scores, standard deviations, aptitude-criterion correlations and selective efficiencies.

Predictive Validity:

Phi Coefficient = .33 ($P/2 < .005$)

Effectiveness of Norms:

Only 69% of the nontest-selected students used for this study were good students; if the students had been test-selected with the S-352R norms, 82% would have been good students. 31% of the nontest-selected students used for this study were poor students; if the students had been test-selected with the S-352R norms, only 18% would have been poor students. The effectiveness of the norms is shown graphically in Table 1:

TABLE 1
Effectiveness of Norms

	Without Tests	With Tests
Good Students	69%	82%
Poor Students	31%	18%

SAMPLE DESCRIPTION

Size:

N = 83

Occupational Status:

Students

School Setting:

Students were enrolled at the following Universities:

1. Loma Linda University, Loma Linda, California
2. University of Southern California, Department of Occupational Therapy, Los Angeles, California
3. San Jose State College, San Jose, California

Students served affiliations at the following hospitals or clinics:

1. Kaiser Rehabilitation Center, Vallejo, California
2. San Francisco Children's Hospital, San Francisco, California
3. Stanford Medical Center, Palo Alto, California
4. Stanford Children's Convalescent Hospital, Palo Alto, California
5. Langley-Porter Neuropsychiatric Hospital, San Francisco, California
6. United Cerebral Palsy, Forest Park School, Orlando, Florida
7. The Harding Hospital, Worthington, Ohio
8. Sunnyview Rehabilitation Center, Schenectady, New York
9. Children's Hospital, Occupational Therapy Department, San Diego, California

10. Woodcrest School, Special Education Unit, Fullerton, California
11. State University of Iowa University Hospital, Iowa City, Iowa
12. Barnes Hospital, St. Louis, Missouri
13. Curative Workshop of Milwaukee, Milwaukee, Wisconsin
14. Children's Hospital of East Bay, Oakland, California
15. The Queen's Hospital, Honolulu, Hawaii
16. Crippled Children Services, Department of Public Welfare, County of San Diego, San Diego, California
17. Veterans Administration Day Treatment Center, San Diego, California
18. Casa Colina Rehabilitation Center, Pomona, California
19. Metropolitan State Hospital, Norwalk, California
20. Brentwood Neuro Psychiatric Hospital, Veterans Administration Center, Los Angeles, California
21. Kennedy Child Study Center, Santa Monica, California
22. Monterey County Hospital, Salinas, California
23. Harbor General Hospital, Torrance, California
24. Orthopedic Hospital & Rehabilitation Center, Los Angeles, California
25. California State Department of Public Health, Los Angeles, California
26. Veterans Administration Hospital, Long Beach, California
27. Newington Hospital for Crippled Children, Newington, Connecticut
28. Veterans Administration Hospital, Sepulveda, California
29. Wadsworth Veteran's Administration Medical & Surgical, Los Angeles, California
30. Los Angeles County General Hospital, Los Angeles, California
31. Veterans Administration Hospital, San Fernando, California
32. Hawaii State Hospital, Kaneohe, Hawaii
33. Woodview Hospital, Van Nuys, California
34. City of Hope Medical Center, Duarte, California

35. Olive View Hospital, Olive View, California
36. Rancho Los Amigos Hospital, Downey, California
37. San Francisco Day Care Center, San Francisco, California
38. Menorah Home & Hospital, Brooklyn, New York
39. Mendocino State Hospital, Talmage, California
40. Ohio Tuberculosis Hospital, Columbus, Ohio
41. Methodist Hospital of Southern California, Arcadia, California
42. Cedars of Lebanon Hospital, Los Angeles, California
43. U.C.L.A. Medical Center, Neuropsychiatric Unit, West Los Angeles, California
44. Connecticut Valley Hospital, Middletown, Connecticut
45. Physical Medicine & Rehabilitation Service, Veteran's Administration Hospital, Martinez, California
46. Curative Workshop of Milwaukee, Kiwanis Children's Center, Milwaukee, Wisconsin
47. California Department of Mental Hygiene, Patton State Hospital, Patton, California
48. Los Angeles Crippled Children's Society, Los Angeles California
49. Wadsworth Veteran's Administration Hospital, Los Angeles, California
50. Veteran's Administration Hospital, Palo Alto, California
51. Los Angeles County Crippled Children's Service, Los Angeles, California
52. Agnews State Hospital, Agnews, California
53. Mount Zion Hospital & Medical Center, San Francisco, California
54. Fairmont Hospital, Physical Disability, San Leandro, California
55. Massachusetts Mental Health Center, Boston, Massachusetts.

California College Selection Requirements:

Applicants for enrollment are selected on the basis of a personal appraisal interview and previous course grades. A minimum of sixty-two semester units (two full years) of college work in an accredited liberal arts college, including specific subject requirements, is required for school admission. Applicants must submit a certificate of health signed by a qualified physician; certification of immunization for small pox, tetanus, typhoid fever, and paratyphoid fever.

Principal Activities:

The job duties for each student while in internship are comparable to those in the job description in the Appendix.

Minimum Experience:

Note:

TABLE 2

Means (' \bar{x} '), Standard Deviations (SD), Ranges, and Pearson Product-Moment Correlations with the Criterion (r) for Age and Education

	Mean	SD	Range	r_{gpa}	r_{drs}	r_{mh}
Age (years)	22.1	3.0	19-36	.132	-.048	-.151
Education (years)	14.8	1.0	12-18	.027	.041	-.072

EXPERIMENTAL TEST BATTERY

All 12 tests of the GATB, B-1002B were administered between September, 1963 and March, 1964 during either the junior or senior year of college for the sample members.

CRITERION

One criterion consisted of final grade point averages attained for all of the occupational therapy courses. The grades were obtained upon completion of the senior year. The grade point average for each student was multiplied by 10 for ease of analysis. The symbol r_{gpa} is used to show correlation with this criterion.

<u>Criterion Score Distribution:</u>	Possible Range	20 - 40
	Actual Range	22 - 39
	Mean	28.8
	Standard Deviation	3.9

Descriptive Rating Scale scores were also obtained for each individual in the sample at the end of each affiliation during internship. (See Appendix) All ratings for each individual in the sample were averaged together and rounded to the nearest whole number. The symbol r_{drs} is used to show correlation with this criterion. The correlation between grade point averages and average scores of descriptive rating scales was .40.

<u>Criterion Score Distribution:</u>	Possible Range	9 - 45
	Actual Range	21 - 43
	Mean	32.2
	Standard Deviation	4.4

The final criterion is a multiple hurdle which eliminates a few individuals based upon grade point averages and a larger group of individuals based upon internship ratings. For ease of computation, individuals meeting both criteria (passes) were assigned converted scores of 55 and those failing one or both of the criteria (fails) were assigned converted scores of 38. The symbol r_{mh} is used to show correlations with this criterion.

Criterion Dichotomy:

The criterion distribution was dichotomized into low and high groups by placing 31% of the sample in the low group to correspond with the percentage of workers considered unsatisfactory or marginal. Workers in the high criterion group were designated as "good workers" and those in the low group as "poor workers". The criterion critical score on the grade point average criterion is 24 (which fails 8% of the sample) and 30 on the descriptive rating scale criterion (which fails 28% of the sample).

APTITUDES CONSIDERED FOR INCLUSION IN THE NORMS

Aptitudes were selected for tryout in the norms on the basis of a qualitative analysis of job duties involved and a statistical analysis of test and criterion data.

TABLE 3

Qualitative Analysis
(Based on the job analysis, the aptitudes indicated appear to be important to the work performed)

G - Intelligence	Needed to assimilate highly technical information, and make judgments and evaluations based on knowledge of psychological and physical condition of patient.
V - Verbal Aptitude	Needed to read and interpret medical charts. Needed to consult with members of rehabilitation team. Necessary for effective communication with patient.
Q - Clerical Perception	Needed to accurately post information and maintain clinical records and reports; to record attending physician's specific recommendations and to schedule patient loads. Needed to avoid perceptual errors in obtaining accurate measurements provided by various instruments used in physical evaluations of patients.

M - Manual Dexterity

Needed to place, adjust, manipulate and operate various pieces of equipment used in the physical evaluation of the patient. Needed to demonstrate various procedures and activities to patient.

TABLE 4

Means (M), Standard Deviations (SD), Ranges and Pearson Product-Moment Correlations with the Criteria (r) for the Aptitudes of the GATB

Aptitudes	Mean	SD	Range	r _{gpa}	r _{drs}	r _{mh} #
G-Intelligence	122.1	11.1	89-163	.199	.138	.260*
V-Verbal Aptitude	122.8	13.3	90-154	.261*	.201	.247*
N-Numerical Aptitude	111.5	12.1	76-141	.195	.171	.243*
S-Spatial Aptitude	124.0	13.3	91-163	.053	-.029	.0
P-Form Perception	124.3	15.7	91-179	.131	.029	.197
Q-Clerical Perception	124.2	14.2	93-178	.184	.152	.232*
K-Motor Coordination	120.8	17.0	82-163	.036	.083	.081
F-Finger Dexterity	116.1	19.0	54-153	.240*	.184	.359**
M-Manual Dexterity	111.7	19.5	69-156	.281**	.184	.452**

* Significant at the .05 level

** Significant at the .01 level

Dichotomized criterion

TABLE 5

Summary of Qualitative and Quantitative Data

Type of Evidence	Aptitudes									
	G	V	N	S	P	Q	K	F	M	
Job Analysis Data										
Important	X	X				X			X	
Irrelevant										
Relatively High Mean					X	X	X			
Relatively Low Sigma	X	X	X	X						
Significant Correlation with GPAC Criterion		X						X	X	
Significant correlation with DRS Criterion										
Aptitudes to be Considered for Trial Norms	G	V	S	Q			F	M		

DERIVATION AND VALIDITY OF NORMS

Final norms were derived on the basis of a comparison of the degree to which trial norms consisting of various combinations of aptitudes G, V, S, Q, F, and M at trial cutting scores were able to differentiate between the 70% of the sample considered good workers and 30% of the sample considered poor workers. Trial cutting scores at five point intervals approximately one standard deviation below the mean are tried because this will eliminate about one third of the sample with three-aptitude norms. For two-aptitude trial norms, minimum cutting scores of slightly more than one standard deviation below the mean will eliminate about 1/3 of the sample; for four-aptitude trial norms, cutting scores of slightly less than one standard deviation below the mean will eliminate about 1/3 of the sample. The Phi Coefficient was used as a basis for comparing trial norms. Norms of V-115, F-95 and M-95 provided optimum differentiation for the occupation of Occupational Therapist (medical ser.) 079.128-918. The validity of these norms is shown in Table 6 and is indicated by a Phi Coefficient of .33 (statistically significant at the .005 level.)

TABLE 6

Predictive Validity of Test Norms, V-115, F-95 and M-95

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Workers	16	41	57
Poor Workers	17	9	26
Total	33	50	83

Phi Coefficient (Φ) = .33 Chi Square (χ^2_v) = 8.9
Significance Level = $P/2 < .005$

DETERMINATION OF OCCUPATIONAL APTITUDE PATTERN

The data for this study did not meet the requirements for incorporating the occupation studied into any of the 36 OAP's included in Section II of the Manual for the General Aptitude Test Battery. The data for this sample will be considered for future groupings of occupations in the development of new occupational aptitude patterns.

CHECK STUDY RESEARCH SUMMARY SHEET FOR S-352R

S-352R

GATB Study No. 2568

Occupational Therapist (medical Ser.) 079.128-018

Check Study No. 1 Research Summary

Sample:

75 (2 male and 73 female) Occupational Therapists employed at various hospitals in Los Angeles, California

TABLE 7

Means, Standard Deviations (SD), Ranges, and Pearson Product-Moment Correlations with the Criterion (r) for Age, Education, Experience and the Aptitudes of the GATB

Aptitudes	Mean	SD	Range	r
Age	32.3	8.9	22-62	-.183
Education	16.5	.8	16-19	.143
Experience	67.0	55.1	6-240	-.250
G-Intelligence	119.7	11.3	91-145	.321**
V-Verbal Aptitude	123.2	10.4	102-151	.172
N-Numerical Aptitude	108.7	13.7	76-147	.284*
S-Spatial Aptitude	118.0	16.6	74-151	.145
P-Form Perception	117.1	18.3	66-163	.242*
Q-Clerical Perception	122.7	15.7	86-164	.051
K-Motor Coordination	117.1	14.7	80-161	.408**
F-Finger Dexterity	107.0	20.1	53-150	.217
M-Manual Dexterity	109.5	18.7	54-152	.349**

*Significant at the .05 level

**Significant at the .01 level

Criterion:

Supervisory ratings of job proficiency made in 1963 and 1964 at approximately the same time as the tests were administered. The descriptive rating scale used for this is the same as that used with the validation sample and is shown in the Appendix.

Design:

Concurrent (test and criterion data were collected at approximately the same time.)

Principal Activities:

The job duties are comparable to those shown in the Appendix for the validation sample.

- 10 -

Concurrent Validity:
Phi Coefficient (ϕ) = .22 ($P/2 < .05$)

Effectiveness of Norms:

Only 67% of the nontest-selected workers used for this study were good workers; if the workers had been test-selected with the S-352R norms, 76% would have been good workers. 33% of the nontest-selected workers used for this study were poor workers; if the workers had been test-selected with the S-352R norms, only 24% would have been poor workers. The effectiveness of the norms is shown graphically in Table 8.

TABLE 8
Effectiveness of S-352R Norms on Check Study Sample
#1

	Without Tests	With Tests
Good Workers	67%	76%
Poor Workers	33%	24%

TABLE 9

Concurrent Validity of S-352 Norms for Check Study
#1

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Workers	15	35	50
Poor Workers	14	11	25
Total	29	46	75

Phi Coefficient (ϕ) = .22 Chi Square $\chi^2_{xy} = 3.7$
Significance Level = $P/2 < .05$

DESCRIPTIVE RATING SCALE
(For Aptitude Test Development Studies)
Student Clinical Evaluation

Score _____

Rating Scale for OCCUPATIONAL THERAPIST (medical ser.) 079.128-018
D.O.T. Title and Code

Directions: Please read Form SP-20, "Suggestions to Raters" and then fill in the items listed below. In making your ratings, only one box should be checked for each question.

Name of student (print) _____
(Last) _____ (First) _____

Sex: Male _____ Female _____

Clinical Center: _____

Rated by _____
Signature _____ Title _____ Date _____

How often do you see this worker in a work situation?

- See him at work all the time.
- See him at work several times a day.
- See him at work several times a week.
- Seldom see him in work situation.

- A. How much work can he get done? (Worker's ability to make efficient use of allotted treatment time, appropriate use of non-scheduled time, and to work at high speed.)
- 1. Capable of very low work output. Can perform only at an unsatisfactory pace.
 - 2. Capable of low work output. Can perform at a slow pace.
 - 3. Capable of fair work output. Can perform at an acceptable but not a fast pace.
 - 4. Capable of high work output. Can perform at a fast pace.
 - 5. Capable of very high work output. Can perform at an unusually fast pace.
- B. How good is the quality of his work? (Worker's ability to do high-grade work which meets quality standards.)
- 1. Performance is inferior and almost never meets minimum quality standards.
 - 2. The grade of his work could stand improvement. Performance is usually acceptable but somewhat inferior in quality.
 - 3. Performance is acceptable but usually not above average in quality.
 - 4. Performance is consistently above average in quality.
 - 5. Performance is always superior in quality.
- C. How accurate is he in his work? (Worker's ability to avoid making mistakes.)
- 1. Makes very many mistakes. Work needs constant checking.
 - 2. Makes frequent mistakes. Work needs more checking than is desirable.
 - 3. Makes mistakes occasionally. Work needs only normal checking.
 - 4. Makes few mistakes. Work seldom needs checking.
 - 5. Rarely makes a mistake. Work almost never needs checking.

- D. How much does he know about his job? (Worker's understanding of the principles, equipment, materials and methods that have to do directly or indirectly with his work.)
- 1. Has very limited knowledge. Does not know enough to do his job adequately.
 - 2. Has little knowledge. Knows enough to "get by".
 - 3. Has moderate amount of knowledge. Knows enough to do fair work.
 - 4. Has broad knowledge. Knows enough to do good work.
 - 5. Has complete knowledge. Knows his job thoroughly.
- E. How much aptitude or facility does he have for this kind of work? (Worker's adeptness or knack for performing his job easily and well.)
- 1. Has great difficulty doing his job. Not at all suited to this kind of work.
 - 2. Usually has some difficulty doing his job. Not too well suited to this kind of work.
 - 3. Does his job without too much difficulty. Fairly well suited to this kind of work.
 - 4. Usually does his job without difficulty. Well suited to this kind of work.
 - 5. Does his job with great ease. Exceptionally well suited for this kind of work.
- F. How large a variety of job duties can he perform efficiently? (Worker's ability to handle several different operations in his work.)
- 1. Cannot perform different operations adequately.
 - 2. Can perform a limited number of different operations efficiently.
 - 3. Can perform several different operations with reasonable efficiency.
 - 4. Can perform many different operations efficiently.
 - 5. Can perform an unusually large variety of different operations efficiently.

G. How resourceful is he when something different comes up or something out of the ordinary occurs? (Worker's ability to apply what he already knows to a new situation.)

- 1. Almost never is able to figure out what to do. Needs help on even minor problems.
- 2. Often has difficulty handling new situations. Needs help on all but simple problems.
- 3. Sometimes knows what to do, sometimes doesn't. Can deal with problems that are not too complex.
- 4. Usually able to handle new situations. Needs help on only complex problems.
- 5. Practically always figures out what to do himself. Rarely needs help, even on complex problems.

H. How many practical suggestions does he make for doing things in better ways? (Worker's ability to improve work methods.)

- 1. Sticks strictly with the routine. Contributes nothing in the way of practical suggestions.
- 2. Slow to see new ways to improve methods. Contributes few practical suggestions.
- 3. Neither quick nor slow to see new ways to improve methods. Contributes some practical suggestions.
- 4. Quick to see new ways to improve methods. Contributes more than his share of practical suggestions.
- 5. Extremely alert to see new ways to improve methods. Contributes an unusually large number of practical suggestions.

I. Considering all the factors already rated, and only these factors, how acceptable is his work? (Worker's "all-around" ability to do his job.)

- 1. Would be better off without him. Performance usually not acceptable.
- 2. Of limited value to the organization. Performance somewhat inferior.
- 3. A fairly proficient worker. Performance generally acceptable.
- 4. A valuable worker. Performance usually above average.
- 5. An unusually competent worker. Performance almost always outstanding.

December 1967

S-352R

FACT SHEET

Job Title

Occupational Therapist (medical ser.) 079.128-018

Job Summary

Plans, organizes, and participates in medically oriented occupational programs in hospitals or similar institutions to rehabilitate patients who are physically or mentally ill.

Work Performed

Studies patient's medical records to become familiar with diagnosis and history of disability, medications given, and precautions to be taken. Confers with members of rehabilitation team to obtain information such as prognosis, self-concept, living situations, and vocation to increase understanding of patient's problems, outlook, personality, and experience, and to determine relationship of occupational therapy to patient's total treatment. Conducts psychological evaluation of patient, using interviewing techniques and observation, to ascertain extent and relationship of such existing psychological factors as co-operativeness, ability to comprehend and follow instructions, attention span, retentiveness, anxiety, depression, and reaction to illness. Administers such clinical evaluations as range of motion, muscle tests, prevocational tests, and activities of daily living, using such measuring devices as goniometers, dynamometers, and dexterity tests, to assess extent of physical loss. Interprets aim of treatment following physical and psychological evaluations, physician's recommendations, and information from other sources, to determine objectives and feasibility of realistic treatment to meet immediate and long-range needs of patient.

Selects manual, mechanical, creative, or psychological activities, techniques and procedures according to patient's mental and manual capacity, degree and location of disability, and interests to gain prescribed results. Plans modification of materials, position, and techniques used in selected media to meet needs of patients with such different handicaps as blindness, deafness, use of only one hand, non-English speaking, or bed confinement in body casts or traction. Plans personal approach to patient to establish rapport, prepare him psychologically for treatment, and motivate him to active participation in treatment program. Develops, according to patient's age and mental comprehension, step-by-step procedures to demonstrate, explain, and teach patient to perform selected activities and separates complicated activities into smaller learning units to avoid giving patient more instruction than he is able to master at one time. Determines need for self-help aids such as special feeders, shaving and grooming equipment, and other holding devices, secures approval of attending physician, and prepares requisition according to department policy. Plans permissive or

authoritative role-playing techniques to precipitate and deal with such predominant patient attitudes as hostility, regression, or other disoriented behavior patterns; and to assist patient in recognizing and understanding his symptoms and need to modify, change, or cover up socially unacceptable or ineffective behavior. Co-ordinates occupational therapy with other required treatment and co-operates with rehabilitation team members to work out total treatment based on patient's need and endurance.

Explains purpose of therapy to patient to prepare him psychologically for treatment and set stage for successful treatment sessions. Demonstrates and explains selected activity and requests patient to attempt process demonstrated, correcting errors as they occur. Encourages patient to work on activity independently to gain self-confidence and increase proficiency. Trains patient in pre-vocational activities according to his mental and manual status, to establish and maintain good work habits and to encourage acceptance of reality. Teaches patient to perform exercise activities such as copper tooling, ceramics, weaving, and wood-working to aid in attaining, maintaining, or regaining desired pattern of movement in individual or multiple joints. Plans competitive games and sports, outings, dances, and parties to assist patient with social development, recognition of socially acceptable behavior, or mental stimulation. Trains amputees in use of terminal devices. Evaluates patient's progress using clinical tests and interviewing techniques and modifies or changes material, activity, equipment, or environment to meet changing needs. Maintains clinical records and reports related information about patient in staff meetings and related interdepartmental meetings.

Effectiveness of Norms

Only 69% of the non-test-selected workers used for this study were good workers; if the workers had been test-selected with the S-352 norms, 82% would have been good workers. 31% of the non-test-selected workers used for this study were poor workers; if these workers had been test-selected with the S-352 norms, only 18% would have been poor workers.

Applicability of S-352 Norms

The aptitude test battery is applicable to jobs which include a majority of duties described above.

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